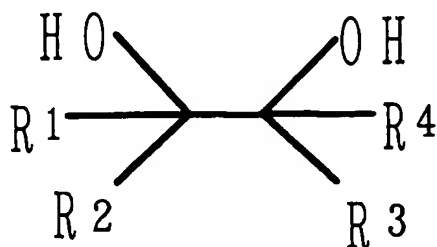


AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for producing a 1,2-diol compound represented by the general formula [2]:

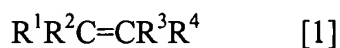


[2]

wherein R^1 , R^2 , R^3 , and R^4 independently represent a hydrogen atom or an alkyl group having 1-30 carbons in a straight or branched chain with or without a substituent of one or more groups selected from an alkoxy group, an alkoxycarbonyl group, a sulfonic acid group, a cyano group, a nitro group, a hydroxyl group, or a carboxyl group, or wherein any two of R^1 , R^2 , R^3 , and R^4 lose a hydrogen atom to be bonded together to form a cycloalkane ring with a carbon atom bonding to any two of R^1 , R^2 , R^3 , and R^4 , a carboxyl group, a cyano group, a nitro group, a sulfonic acid group, an alkyl group which may have a substituent, a cycloalkyl group which may have a substituent, an aryl group which may have a substituent, an aralkyl group which may have a substituent, a heterocyclic group which may have a substituent, an alkoxy group which may have a substituent, an alkoxycarbonyl group which may have a substituent, an acyl group which may have a substituent, an amide group which may have a substituent, a silyl group which may have a substituent, a phosphoryl group which may have a substituent, a sulfinyl group which may have a substituent, a sulfonyl group which may have a substituent, or a sulfonate group which may have a substituent. Any two of R^1 , R^2 , R^3 , and R^4 may lose a hydrogen atom to be bonded together to form

~~a ring with a carbon atom bonding to them, and any two of R¹, R², R³, and R⁴ may lose a hydrogen atom and be bonded through a divalent atom and/or a divalent functional group to form a ring with a carbon atom bonding to them,~~

~~characterized by comprising~~ reacting an olefin compound represented by the general formula [1]:



wherein R¹, R², R³, and R⁴ are as defined above,

with hydrogen peroxide in the presence of a polymer compound having a sulfonic acid group (with the proviso that a silicon oxide-titanium oxide based synthetic zeolite is not used as a catalyst in combination with the polymer compound).

2. (Original) The method according to claim 1, wherein the hydrogen peroxide is in the form of an aqueous hydrogen peroxide solution.

3. (Currently amended) The method according to claim 1 or 2, wherein the polymer compound having a sulfonic acid group is a styrene polymer ~~with a side chain comprising~~ having a sulfonic acid group in a side chain of the polymer.

4. (Currently amended) The method according to claim 1 or 2, wherein the polymer compound having a sulfonic acid group is a styrene-divinylbenzene copolymer ~~with a side chain comprising~~ having a sulfonic acid group in a side chain of the polymer.

5. (Currently amended) The method according to claim 1 or 2, wherein the polymer compound having a sulfonic acid group is a fluorocarbon resin ~~with a side chain comprising~~ having a sulfonic acid group in a side chain of the polymer.